

REMARKS

Applicants acknowledge the indication that claims 14, 15, 22, 35, 36, 41, and 42 contain allowable subject matter. Claims 1-46 are pending. The drawings have been amended. The specification has been amended. Claims 1-3, 9, 10, 12, 32, and 44 have been amended. Claim 47 has been canceled. No new matter has been added by way of this amendment. Reconsideration of the application is respectfully requested.

Claims 1-12, 17, 21, 24-32, 34, 38-40, and 44-46 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,017,354 to *Culp* et al., while claims 18, 19, and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the same reference in view of U.S. Patent No. 5,400,267 to *Denen* et al. Claims 20, 24, 37, and 43 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Culp* et al. in view of U.S. Patent No. 6,331,181 to *Tierney* et al. Claims 20 and 33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Culp* et al. in view of U.S. Patent No. 6,298,255 to *Cordero* et al. Lastly, claims 13 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Culp* et al. in view of U.S. Patent No. 6,434,507 to *Clayton* et al. These several rejections are respectfully traversed.

The specification has been objected to as introducing new matter into the disclosure by way of the amendment filed June 26, 2003 ["Amendment B"]

As set forth on page 2, paragraph 1 of the Office Action:

The added material which is not supported by the original disclosure is as follows: "which optimizes operation of the generator console for operation of the generator console for operation with the end effector to achieve optimal tissue effects with the end effector," found in Claims 1, 2, 3, 9, 10, 12, 32, and 44. Neither the word "optimize" nor the word "optimal tissue effects" can be found in any of passages alluded to by Applicant as giving antecedent basis for this word

in the specification [“page 8, lines 3-6; page 14, lines 14-16; and page 36, lines 4-8 of the specification”--reference made on page 10 2nd paragraph of Amendment submitted 6/26/2003]. The passages that Applicant refers to merely assert that the power provided to the cutting blade will affect the cutting rate and the degree of hemostasis of the tissue. The concept of “optimal tissue effects” is not discussed in the specification. Applicant is invited to point out where such language is used.

As set forth in paragraph 3 of the office:

The amendment filed December 15, 2003 [“Amendment D”] is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “optimal tissue effects is obtained when a balance between tissue cutting and tissue hemostasis is achieved” found in Claim 47. The description of optimal tissue effects being obtained by balancing cutting and hemostasis cannot be found in any of passages alluded to by Applicant as giving antecedent basis for this word in the specification [“page 8, lines 3-6; page 14, lines 14-16; and page 36, lines 4-8 of the specification” -- reference made on page 17 2nd full paragraph of Amendment submitted 12/15/2003]. Applicant is required to cancel the new matter in the reply to this Office Action.

In response to these objections, Applicants have amended the claims so as to delete the words “optimize” and “optimal tissue effects” from all claims in which these words appear. In addition, claim 47 has been canceled. Accordingly, the objections based on the introduction of new matter should be withdrawn.

Independent claims 1-3, 9, 10, 12, 32, and 44 have been amended to recite the limitation “a memory disposed in the sheath of the end-effector which adjusts the generator console for operation with the end-effector to set a cutting rate and degree of tissue hemostasis with the end-effector.” Support for this limitation may be found on page 8, lines 3-6; page 14, lines 14-16; and page 36, lines 4-8 of the specification. Accordingly, Applicants respectfully submit that this limitation does not constitute new matter.

U.S. Patent No. 6,017,354 to *Culp* et al. relates to an integrated surgical tool system for energizing different powered surgical handpieces (see *Abs.*). *Culp* et al. fails to teach “a memory disposed in the sheath of the end-effector which adjusts the generator console for operation with the end-effector to set a cutting rate and degree of tissue hemostasis with the end-effector,” as set forth and presently claimed.

In this regard, the following is noted. For every blade having different shapes and designations for use on specific types of tissue, there is a desired balance between cutting and hemostasis/coagulation that must be achieved. To accomplish this, for every type of blade design, the optimal parameters must be found to drive the blade so as to achieve the best tissue effects associated with the application that a blade is designed for. For example, one blade can be designed for use in cutting bowel tissue. In this case, sole would be adjusted so as to drives the blade such that it would cut or coagulate tissue in the most desirable manner.

In the claimed invention, the type of blade that is connected to the hand piece is identified by the console. Next, the operational parameters which are appropriate for the blade and tissue that the blade is indicated for are adjusted. In this regard, hemostasis/coagulation refers to the stoppage of an outflow of blood from an incision (e.g., the arrest of bleeding or stagnation of blood) or the causation of the transformation of a liquid or solid into a soft, semi solid or mass (also referred to as coagulation).

The independent claims include the limitation “affect a cutting rate and degree of tissue hemostasis.” This refers to achieving the optimal balance between the time-to-cut through tissue and the level of hemostasis. Optimal balance is accomplished when the fastest time to cut through tissue is achieved without compromising the level of hemostasis that is achieved. Fast cutting

results in poor hemostasis, while slow cutting results in good hemostasis. In view of the foregoing, Applicants respectfully assert that independent claims 1-3, 9, 10, 12, 32, and 44 are not anticipated by the *Culp* et al. patent and thus, reconsideration and withdrawal of the rejections under 35 U.S.C. §102(b) are respectfully requested.

U.S. Patent No. 5,400,267 to *Denen* et al. relates to a non-volatile memory disposed within electrically powered medical equipment is described (see *Abs.*). According to this patent, the non-volatile memory may be preprogrammed to store utilization limits and parametric data for the equipment. However, this reference fails to cure the deficiency of the *Culp* et al. patent. Specifically, the *Denen* et al. patent fails to teach “a memory disposed in the sheath of the end-effector which adjusts the generator console for operation with the end-effector to set a cutting rate and degree of tissue hemostasis with the end-effector,” as set forth in the amended independent claims. As a result, the combination of the *Denen* et al. and *Culp* et al. patent fails to arrive at the present claimed invention.

U.S. Patent No. 6,331,181 to *Tierney* et al. teaches robotic surgical tools, systems, and methods for preparing for and performing robotic surgery include a memory mounted on the tool (see *Abs.*). However, this reference fails to cure the deficiency of the *Culp* et al. patent. Specifically, the *Tierney* et al. patent also fails to teach “a memory disposed in the sheath of the end-effector which adjusts the generator console for operation with the end-effector to set a cutting rate and degree of tissue hemostasis with the end-effector,” as set forth in the amended independent claims. It follows that the combination of the *Tierney* et al. and *Culp* et al. patents fails to arrive at the present claimed invention.

U.S. Patent No. 6,298,255 to *Cordero et al.* teaches a sensor system which includes a biopotential signal monitor, a smart sensor and the accompanying hardware and software interface which authenticates the source and validity of the smart sensor and also verifies that the smart sensor meets various criteria for use (see *Abs.*). However, this reference fails to cure the deficiency of the combined *Culp et al.* and *Tierney et al.* patents. Specifically, the *Cordero et al.* patent also fails to teach “a memory disposed in the sheath of the end-effector which adjusts the generator console for operation with the end-effector to set a cutting rate and degree of tissue hemostasis with the end-effector,” as set forth in the amended independent claims. Accordingly, Applicants respectfully assert that the combination of the *Cordero et al.* and *Culp et al.* patents also fails to arrive at the present claimed invention.

Lastly, U.S. Patent No. 6,434,507 to *Clayton et al.* relates to a system for generating images during medical and surgical procedures that indicate a change in the condition or configuration of a medical instrument being used, wherein the system provides a positive indication of the position of a removable or interchangeable portion of the instrument (see col. 1, lines 19-25). However, even when this reference is combined with the previously cited references, the claimed system is still not achieved. This is because the *Clayton et al.* patent also fails to teach “a memory disposed in the sheath of the end-effector which adjusts the generator console for operation with the end-effector to set a cutting rate and degree of tissue hemostasis with the end-effector.”

In sum, none of the cited references, neither individually nor in combination, teach or suggest “a memory disposed in the sheath of the end-effector which adjusts the generator console for operation with the end-effector to set a cutting rate and degree of tissue hemostasis with the end-effector,” as set forth in independent claims 1-3, 9, 10, 12, 32, and 44. In view of this, Applicants

respectfully assert that the independent claims are not rendered obvious and unpatentable over the combination of the cited references. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are respectfully requested.

In light of the patentability of independents claim 1-3, 9, 10, 12, 32, and 44, for the reasons above, dependent claims 4-8, 11, 14-31, 33-43, 45, and 46 are also patentable over the cited references.

Based on the foregoing amendments and remarks, this application should be in condition for allowance. Early passage of this case to issue is respectfully requested. However, if there are any questions regarding this amendment, or the application in general, a telephone call to the undersigned would be appreciated since this would expedite the prosecution of the application for all concerned.

Dated: April 1, 2004

Respectfully submitted,

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